The Claims:

1. A light transfer component formed from a material that is transparent for light of a predetermined range of wavelengths, the light transfer component comprising:

a first portion being substantially flat,

a second solid rounded portion, and

an intermediate portion disposed between the first and the second portion, the intermediate portion being at least in part hollow and rounded,

wherein the light transfer component is arranged for guiding light from the first portion through the intermediate portion to the second portion.

2. A light transfer component formed from a material that is transparent for light of a predetermined range of wavelengths, the light transfer component comprising:

a first portion being substantially flat,

a second solid rounded portion, and

an intermediate portion disposed between the first and the second portion, the intermediate portion being at least in part hollow and rounded,

wherein the light transfer component is arranged for guiding light from the first portion through the intermediate portion to the second portion and

wherein the light transfer component is arranged so that light guided from the first portion to the second portion will not experience a reduction in cross-sectional area of more than 20% of the material through which the light is guided.

3. The light transfer component as claimed in claim 1 or 2 being arranged so that light guided from the first

portion to the second portion will not experience a reduction in cross-sectional area of the material through which the light is guided.

4. The light transfer component as claimed in any one of the preceding claims wherein the cross-sectional area is substantially constant throughout the light transfer component.

5. The light transfer component as claimed in any one of the preceding claims wherein in use the average solid angle of the propagating light is substantially constant throughout the light transfer component.

6. The light transfer component as claimed in any one of the preceding claims being arranged so light guided from the first portion to the second portion will experience light guiding condition in which in use the product of cross-sectional area and the average solid angle is substantially constant.

7. The light transfer component as claimed in any one of the preceding claims wherein refractive index is constant throughout the light transfer component.

8. The light transfer component as claimed in any one of the preceding claims having two substantially parallel surfaces.

9. The light transfer component as claimed in claim 1 or 2 wherein the first portion comprises a rectangular sheet.

10. The light transfer component as claimed in any one of

claims 1 to 3 being arranged such that light directed from the first portion to the second portion will experience an increase in cross-sectional area of the material through which the light is guided.

11. The light transfer component as claimed in any one of the preceding claims being arranged so that in use light guided from the first portion to the second portion will experience light guiding condition in which the product of cross-sectional area and average solid angle will not change by more than 20%.

12. The light transfer component as claimed in any one of the preceding claims being arranged such that, in use, light guided from the first portion to the second portion will experience a gradual transition in the cross-sectional and longitudinal profiles of the light transfer component.

13. The light transfer component as claimed in claim 12 wherein the changes in profile are sufficiently gradual such that there are negligible bending losses of the light when the light is guided through the transfer component.

14. The light transfer component as claimed in any one of the preceding claims being arranged for connection to an optical cable.

15. The light transfer component as claimed in claim 14 being arranged for face-to-face connection to the optical cable.

16. The light transfer component as claimed in any one of

claims 1 to 16 being arranged for face-to-face connection to a light converting device.

17. The light transfer component as claimed in any one of the preceding claims being arranged for direct connection to at least one light collector sheet.

18. The light transfer component as claimed in claim 17 wherein the first portion is arranged for face-to-face connection with the or each light collector sheet.

19. The light transfer component as claimed in any one of claims 1 to 16 wherein the first portion comprises at least one light collector sheet doped with dye molecules and arranged for absorption of sunlight and emission of fluorescent radiation.

20. The light transfer component as claimed in claim 19 wherein the or each light collector sheet and the light transfer component are integrally formed.

21. The light transfer component as claimed in any one of claims 19 or 20 being formed from a transparent material with a refractive index that approximates that of the or each collector sheet.

22. The light transfer component as claimed in claim 21 wherein the material is poly methyl methacrylate (PMMA).

23. The light transfer component as claimed in claims 14 or 15 wherein the optical cable has a single core.

24. The light transfer component as claimed in claims 14

or 15 wherein the optical cable comprises a bundle of optical fibres.

25. The light transfer component as claimed in any one of the preceding claims wherein the second rounded portion of the light transfer component is cladded with a material of low refractive index.

26. The light transfer component as claimed in any one of the preceding claims wherein the intermediate portion of the light transfer component is cladded with the material of low refractive index.

27. A light transfer component comprising

spaced apart first and second portions, the first portion being flat so as to present a cross-sectional surface that is suitable to receive light from a light collector sheet, the second portion being rounded and solid in cross-section, and

an intermediate portion disposed between the first and the second portion and arranged to transfer light from the first portion to the second portion, the intermediate portion having a cross-sectional shape that varies along its length from the flat portion to the rounded portion and through a portion that incorporates a hollow core.